



National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

February 7, 1974

Professor Ye. P. Borisenkov
Director, The Main Geophysical Observatory
Karbysheva 7, Leningrad k-21
USSR

Dear Dr. Borisenkov:

As you know, during the meeting of Academician Fedorov and Chairman Train on November 16, 1973, it was decided that we will have our first formal meeting of Working Group VIII on the Influence of Environmental Changes on Climate in Leningrad from June 10 to June 21, 1974. I feel that we should take specific steps to make plans for this meeting. I suggest we decide together the following matters:

A. Subgroup Chairmen

The new organization of Working Group VIII, as decided by Academician Fedorov and Chairman Train, is given below, together with the U.S. Subgroup Chairmen and those Soviet Chairmen that I know about.

1. Joint Studies of the Effects of Changes in the Heat Balance of the Atmosphere on the Climate.
 - a. Subgroup 1 - The Influence of the Changes of Solar Activity on the Climate.
U.S. Chairman - Dr. Walter Orr Roberts
USSR Chairman - Academician E. R. Mustel (?)
 - b. Subgroup 2 - Modeling of the Climate.
U.S. Chairman - Dr. Joseph Smagorinsky
USSR Chairman - ?
 - c. Subgroup 3 - Assessment of Past Changes of the Climate on the Basis of Analysis of Natural Objects and Data.
U.S. Chairman - Dr. Murray Mitchell
USSR Chairman - ?

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2. Joint Studies of the Effects of Pollution of the Atmosphere on Climate.
 - a. Subgroup 4 - Monitoring Atmospheric Constituents and Assessment of their Effects on Climate.
U.S. Co-Chairmen - Dr. Lester Machta;
Mr. D. H. Pack
USSR Chairman - ?
 - b. Subgroup 5 - The Effect of Pollution of the Upper Levels of the Atmosphere on Climate.
U.S. Chairman - Dr. Alan Grobecker
USSR Chairman - Dr. Igor L. Karol
3. Joint Studies of the Meteorology and Air-Sea Interaction of Polar Regions in both Hemispheres as they affect the Climate of the Planet.
 - a. Subgroup 6 - Joint Studies of the Meteorology and Air-Sea Interaction of Polar Regions in both Hemispheres as they affect the Climate of the Planet.
U.S. Chairman - Dr. Joseph Fletcher
USSR Chairman - Dr. Treshnikov

I would like to hear from you, as soon as possible, the names of the rest of the USSR Subgroup Chairmen. In Washington, we mentioned the possibility of Dr. Kondratyev or Dr. Budyko chairing Subgroup 4. We are especially interested in learning the names of scientists to be associated with Subgroup 4 since it encompasses two topics, effect of pollutants and "clean" air monitoring. Although these are intimately related, their technical aspects and physical locations do differ significantly. Also, the possibility that Academician Marchuk would chair Subgroup 2 was discussed. These scientists would be fine with us. But we need to know soon who will chair all the Soviet Subgroups, so that the U.S. Chairmen can start corresponding with them to arrange the program for the Leningrad meeting.

B. Plans for the Leningrad Meeting

Because some of the U.S. delegation will be traveling before the Leningrad meeting, it will be necessary to get USSR visas early. We really need them by May 15. By taking care of the problem early, we would like to avoid last minute problems, such as have arisen in the past about visas.

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We will assume, as we discussed in Washington, that the financial arrangements for our meeting will be: receiving side pays from the port of entry. The U.S. delegation will arrange for and pay for their air travel to Leningrad or maybe Moscow and also will arrange for and pay for their travel from the USSR back to the U.S.

The U.S. delegation will plan on arriving in Leningrad on Saturday, June 8, leaving Sunday for rest and relaxation, and then starting our meeting on June 10th.

I have attached a tentative agenda that I have prepared for the first 3-day meeting in Leningrad. I would like to have your comments and suggested changes on this tentative agenda. I will assume that you will provide normal services of interpretation and translation in connection with our meetings.

I assume that we will get back together in Leningrad for the last two days, June 20 and 21, to summarize our findings and to prepare a report setting forth our future program.

C. Visits to Other Institutes

We agreed that the Subgroups would spend about a week, from roughly June 13 to June 19, visiting institutes, observatories, or field sites working on related fields. We have now, some reasonably good ideas of some institutes that the different Subgroups would like to visit.

1. Subgroup 1

LENINGRAD

- A. Main Geophysical Observatory of Hydrometeorological Services
 - Dr. Sazanov

MOSCOW

- a. World Meteorological Center
 - Dr. M. Petrosiants
- b. Astronomical Council of the USSR Academy of Sciences
 - Academician E. R. Mustel

NOVOSIBIRSK

- a. Academy of Sciences of the USSR, Siberian Branch,
Computing Center
 - Academician G. I. Marchuk

CRIMEA

- a. Astro-Physical Observatory
 - Dr. Severny

2. Subgroup 2

LENINGRAD

- a. Academy of Sciences, Institute of Oceanology
 - Dr. Zilitinkevich
- b. University of Leningrad
 - Professor Kondratyev
- c. Main Geophysical Observatory
 - Professor M. I. Budyko

MOSCOW

- a. USSR Academy of Sciences, Institute of Atmospheric Physics
 - Academician Oboukhov
- b. Hydrometeorological Service
 - Dr. Petrosiants
- c. USSR Academy of Sciences, Institute of Oceanology
 - Professor Monin

NOVOSIBIRSK

- a. Academy of Sciences of the USSR, Siberian Branch,
Computing Center
 - Academician G. I. Marchuk

3. Subgroup 3

LENINGRAD

- a. USSR Academy of Sciences, Federal Geological Institute
VSEGEI
 - I. I. Krasnow

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- b. USSR Academy of Sciences, Institute of Zoology
 - M. G. Petraschevskoya
- c. USSR Academy of Sciences, Institute of Astronomy
 - N. A. Budnikova and S. G. Sharaf
- d. Main Geophysical Observatory
 - Professor M. I. Budyko

MOSCOW

- a. USSR Academy of Sciences, Institute of Oceanology
 - Professor Monin
- b. USSR Academy of Sciences, Institute of Geography
 - Academician Gerasimov
- c. USSR Academy of Sciences, Institute of Geology
 - V. V. Menner

4. Subgroup 4

LENINGRAD

- a. The Main Geophysical Observatory
 - Dr. Zaitzev
- b. The University of Leningrad, Department of Solar Radiation and Aerosols
 - Dr. Kondratyev

OTHER LOCATIONS

- a. One or more sites of the proposed new Global Monitoring Stations

5. Subgroup 5

LENINGRAD

- a. Department of Atmospheric Physics, Leningrad University
 - Professor K. Ya. Kondratyev
- b. Main Geophysical Observatory
 - Dr. Igor L. Karol
 - Academician M. I. Budyko

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c. Komarov Botanical Institute, USSR Academy of Sciences

- Dr. Leonid E. Rodin

MOSCOW

a. USSR Academy of Sciences, Institute of Civil Aviation

- Designers of TU-144

b. USSR Academy of Sciences TSAGI, Ulitsa Radio 17

- Dr. V. V. Suchev

c. Institute of Atmospheric Physics, Academy of Sciences of the USSR

- Professor A. M. Oboukhov

d. Computing Center of the Academy of Sciences of the USSR

- Professor M. N. Kogan

NOVOSIBIRSK

a. Academy of Sciences of the USSR, Siberian Branch, Computing Center

- Academician G. I. Marchuk

6. Subgroup 6

LENINGRAD

a. The Main Geophysical Observatory
The Arctic and Antarctic Research Institute

- S. Krotkevich

MOSCOW

a. Glaciological Program of the Soviet Antarctic Expedition, Institute of Geography, USSR Academy of Sciences

- Professor V. M. Kotlyakov

b. Institute of Geography, USSR Academy of Sciences

- Academician I. P. Gerasimov

NOVOSIBIRSK

a. Academy of Sciences of the USSR, Siberian Branch

- Academician G. I. Marchuk

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I would like to ask your help in arranging for visits to these Institutions and others that you feel would be useful. Could you please make up a plan for the travel for each Subgroup and send it to me.

The most important of these visits outside of the Leningrad area are

- a. Novosibirsk, Academy of Sciences of the USSR, Siberian Branch, Academician G. I. Marchuk.
- b. Sites of one or more of the forthcoming new Global Monitoring Stations.

We strongly hope that these visits can be carried out.

Several of our scientists have expressed interest in visiting the new Institute on the Environment of the Far East Division of the Academy of Sciences, directed by Academician Andre Kapitza in Vladivostok. This is so far from Leningrad that it would not seem possible to visit it during the middle of our meeting. But it might be possible for a few of our people to stop there on the way home and visit this Institute. These people could then go home via air from Khabarovsk to Japan or via ship from Vladivostok or Nahodka to Japan. Would it be possible to arrange a visit like this to Academician Kapitza's Institute?

D. Family Travel

I have a request from one member of the U. S. Delegation to Working Group VIII, Dr. John Wilcox, to bring his wife and two children (Sharon, age 16, and David, age 14) with him to Leningrad at the time of the meeting of our Working Group. He has discussed this matter with Academician Mustel and has been encouraged to do this. Dr. Wilcox has visited the USSR before as a guest of the Soviet Academy and, at that time, it was suggested he could bring his family with him next time. I may have other requests along this line, so I wanted to discuss the matter with you. Would it be appropriate to consider the Wilcox family to be guests of the Soviet Academy of Sciences during this trip? What arrangements would be made for them? If other requests of this type materialize, how should I treat them?

I am sure there are other subjects we should talk over before our June meeting. I would like to hear from you about the subjects I have raised here and other subjects you would like to bring up.

Sincerely,



Dr. Wilmot N. Hess, Director
Environmental Research Laboratories

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U. S. DELEGATION TO LENINGRAD

1. Dr. W. N. Hess, U.S. Chairman
Director, Environmental Research Laboratories, NOAA
2. Dr. Edward S. Epstein, U.S. Vice-Chairman
Associate Administrator for Environmental Monitoring and
Prediction, NOAA
3. Professor John M. Wilcox, Acting Chairman - Subgroup 1
Institute for Plasma Research, Stanford University
4. Dr. Joseph Smagorinsky, Chairman - Subgroup 2
Director, Geophysical Fluid Dynamics Laboratory
5. Dr. Cecil Leith, Member - Subgroup 2
National Center for Atmospheric Research
6. Dr. J. Murray Mitchell, Chairman - Subgroup 3
Environmental Data Services
7. Professor John Imbrie, Member - Subgroup 3
Department of Geological Sciences, Brown University
8. Dr. Lester Machta, Co-Chairman - Subgroup 4
Director, Air Resources Laboratory
9. Mr. Donald H. Pack, Co-Chairman - Subgroup 4
Deputy Director, Air Resources Laboratory
10. Professor R. Charlson, Member - Subgroup 4
University of Washington
11. Dr. Alan J. Grobecker, Chairman - Subgroup 5
Manager, CIAP Program, Department of Transportation
12. Dr. Samuel C. Coroniti, Member - Subgroup 5
CIAP Program, Department of Transportation
13. Mr. Joseph O. Fletcher, Chairman - Subgroup 6
Head, Office of Polar Programs, National Science Foundation
14. Mrs. Fridel Settle, Secretary
Environmental Research Laboratories, NOAA

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AGENDA FOR WORKING GROUP VIII
MEETING IN LENINGRAD

June 10

1. Structure, Organization and Purpose of Meeting
Dr. Borisenkov
Dr. Hess
2. Current understanding of changes of solar activity and their effect on Climate
USSR Speaker 1 hour
Dr. Wilcox 1 hour
Discussion $\frac{1}{2}$ hour
3. Current state of knowledge of climate modeling
Dr. Smagorinsky 1 hour
USSR Speaker 1 hour
Discussion $\frac{1}{2}$ hour

June 11

4. Present understanding of past changes in the climate
USSR Speaker 1 hour
Dr. Mitchell 1 hour
Discussion $\frac{1}{2}$ hour
5. Present status of global atmospheric monitoring and its implications
Dr. Machta $\frac{1}{2}$ hour; D. H. Pack $\frac{1}{2}$ hour
USSR Speaker 1 hour
Discussion $\frac{1}{2}$ hour

June 12

6. Current knowledge of upper atmosphere pollution and its effects
Dr. Grobecker 1 hour
USSR Speaker 1 hour
Discussion $\frac{1}{2}$ hour
7. Current status of polar studies of meteorology and air-sea interactions
USSR Speaker 1 hour
Dr. Fletcher 1 hour
Discussion $\frac{1}{2}$ hour